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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,557	04/27/2006	Christian Milo	3712036.00719	2772
29157	7590	05/26/2010	EXAMINER	
K&L Gates LLP P.O. Box 1135 CHICAGO, IL 60690			STULIL, VERA	
			ART UNIT	PAPER NUMBER
			1781	
			NOTIFICATION DATE	DELIVERY MODE
			05/26/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

chicago.patents@klgates.com

## Office Action Summary

**Application No.**

10/595,557

**Applicant(s)**

MILO ET AL.

**Examiner**

VERA STULII

**Art Unit**

1781

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 7-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claims 1, 2, 4, 7, 9-11 and 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al (EP 0791296).**

In regard to claims 1, 13 and 14, Wood et al disclose a process for providing a coffee beverage base by providing a coffee component comprising coffee aroma (Abstract; Col. 1 lines 36-37; Col. 5 Example 5), providing a micro-organism with an ability to ferment and inoculating the coffee component with the micro-organism, (Abstract; Col. 1 lines 40-41; Col. 2 lines 10-38; Col. 5 Example 5), and subjecting the incubated coffee component to fermentation to generate a fermented coffee component that has a fruity note due to the fermentation of the coffee aroma, while controlling the fermentation conditions to substantially prevent the generation of alcohol and provide a substantially non-alcoholic coffee beverage base (Abstract; Col 1 lines 40-41; Col. 2 lines 39-46; Col. 3 lines 1-13; Col. 5 Example 5).

In regard to the temperature recitation, Wood et al discloses fermentation by both bacterial and yeast strain simultaneously at 27-32° C (Col. 2 line 50-52). Further in regard to the temperature recitation, Wood et al discloses fermentation by yeast at 27-32° C, and then addition of bacterial strain for further fermentation at 20-32°C (Col. 3 line 3). In regard to the "controlling the fermentation conditions to substantially prevent the generation of alcohol and provide a substantially non-alcoholic coffee beverage

base" recitation, Wood et al also discloses that the temperature of the fermentation media is reduced before inoculation with microorganisms in order to reduce production of alcohol (Col. 3 lines 5-8). Wood et al further discloses that the fermentation temperature may be further reduced to 0-12° C in order to reduce formation of alcohol due to the fermentation with yeast (Col. 3 lines 9-13). Wood et al discloses generation of fruity note due to the fermentation of the coffee component with micro-organism (Example 5 Col. 5 line 52). Wood et al discloses substantially non-alcoholic beverage (i.e. containing only traces of alcohol) (Example 5 Col. 5 lines 54-55).

In summary, in regard to claims 13, 1 and 14, Wood et al disclose a process for providing a coffee beverage base by:

- providing a coffee component comprising coffee aroma;
- providing a micro-organism (bacterial strain) with ability to ferment and inoculating the coffee component with the micro-organism;
- subjecting the incubated coffee component to fermentation by bacterial strain to generate a fermented coffee component that has a fruity note due the fermentation of the coffee aroma, while controlling the fermentation conditions to substantially prevent the generation of alcohol and provide a substantially non-alcoholic coffee beverage base;

- and fermentation by bacterial strain below 22° C ( at 20-32°C (Col. 3 line 3)).

Wood et al is silent as to the content of ethanol in the coffee beverage base below 0.05%. However, as stated above, Wood et al also discloses that the temperature of the fermentation media is reduced before inoculation with microorganisms in order to

**reduce production of alcohol** (Col. 3 lines 5-8). Wood et al further discloses that the fermentation temperature may be further reduced to 0-12° C **in order to reduce formation of alcohol due to the fermentation with yeast** (Col. 3 lines 9-13). Wood et al discloses substantially **non-alcoholic beverage (i.e. containing only traces of alcohol)** (Example 5 Col. 5 lines 54-55). Therefore, since Wood et al discloses coffee beverage base containing only traces of alcohol, and reduction of fermentation temperature to prevent formation of alcohol, the amount of alcohol in the coffee beverage base is expected to be as claimed. Regarding the amount of alcohol in the coffee beverage base, it is noted that although the references do not specifically disclose every possible quantification or characteristic of its product, such as the amount of alcohol in the coffee beverage base, this characteristic would have been expected to be in the claimed range absent any clear and convincing evidence and/or arguments to the contrary. The reference discloses the same starting materials and methods as instantly (both broadly and more specifically) claimed, and thus one of ordinary skill in the art would recognize that the amount of alcohol in the coffee beverage base, among many other characteristics of the product obtained by referenced method, would have been an inherent result of the process disclosed therein. The Patent Office does not possess the facilities to make and test the referenced method and product obtain by such method, and as reasonable reading of the teachings of the reference has been applied to establish the case of obviousness, the burden thus shifts to applicant to demonstrate otherwise.

In any case, since Wood et al discloses control of fermentation by reduction of temperature in order to reduce formation of alcohol and beverage containing only traces of ethanol, one of ordinary skill in the art would have been motivated to control the fermentation temperatures in order to produce a non-alcoholic beverage having alcohol content as recited.

In regard to claim 2, Wood et al discloses coffee extract (Abstract; Col. 1 line 36-37; Col. 5 Example 5).

In regard to claim 4, Wood et al discloses 1% of instant coffee (Col. 5 Example 5).

In regard to claim 7, Wood et al discloses that the fermentation temperature may be further reduced to 0-12° C in order to reduce development of acidity due to the fermentation with bacterial culture (Col. 3 lines 9-13).

In regard to claim 15, Wood et al disclose supplementing the coffee component with carbohydrate effective to enhance the fermentation process (sugar) (Abstract; Col. 1 line 38, Col. 2 lines 6-8; Col. 5 lines 35-36).

In regard to claims 16 and 20, Wood et al disclose the fermentation temperature between 8 and 22 ° C (Col. 3 line 1).

In regard to claims 17 and 21, Wood et al disclose the fermentation time between 4 and 6 hours (Col. 3 line 4).

Regarding the ratio of 2-and 3-methylbutanol over 2-and 3-methylbutanal, the ratio of thioacetates over thiols and foam properties recitations in claims 9-11 and 18-19, it is noted that although the references do not specifically disclose every possible

quantification or characteristic of its product, such as the ratio of 2-and 3-methylbutanol over 2-and 3-methylbutanal, the ratio of thioacetates over thiols and foam properties, these characteristics would have been expected to be as claimed absent any clear and convincing evidence and/or arguments to the contrary. The reference discloses the same starting materials and methods as instantly (both broadly and more specifically) claimed, and thus one of ordinary skill in the art would recognize that the ratio of 2-and 3-methylbutanol over 2-and 3-methylbutanal, the ratio of thioacetates over thiols and foam properties, among many other characteristics of the product obtained by referenced method, would have been an inherent result of the process disclosed therein. The Patent Office does not possess the facilities to make and test the referenced method and product obtain by such method, and as reasonable reading of the teachings of the reference has been applied to establish the case of anticipation, the burden thus shifts to applicant to demonstrate otherwise.

**Claims 3, 5, 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al (EP 0791296) in view of Jimenez et al (US 5,736,182).**

In regard to claims 3 and 5, Wood et al is silent as to the "coffee aroma is a distillate of coffee aroma", amount of coffee aroma. In regard to claim 8, Wood et al is silent as to the artificial fermented coffee aroma component. In regard to claim 12, Wood et al is silent as to beverage base is a beverage concentrate. Jimenez et al discloses:

The coffee aroma components may be recovered at several points during processing of the soluble coffee powder. One commonly applied procedure is to recover coffee aroma components by steam stripping of coffee extract leaving an extraction system. The mixture of steam and coffee aroma components is then condensed to form an aqueous distillate. The aqueous distillate is primarily comprised of water of coffee aroma components and soluble coffee solids.  
(Col. 1 lines 22-29).

Jimenez et al further discloses freeze concentration of aqueous aroma distillates obtained by steam stripping a coffee extract (Col. 3 lines 15-24). One of ordinary skill in the art would have been motivated to modify Wood et al and to employ concentrated aqueous aroma distillates obtained by steam stripping a coffee extract as a conventional source of coffee component as disclosed by Jimenez et al. One of ordinary skill in the art would have been motivated to do so, in order to obtain highly aromatic coffee component and to increase organoleptic properties of the final beverage. One of ordinary skill in the art would have been motivated to provide fermented coffee beverage in a concentrated form, since production of coffee beverages in a concentrated form was well known in the art as disclosed by Jimenez et al. Since Jimenez et al. discloses separation of coffee aroma fraction for further enhancement of the aroma of the final coffee beverage and Wood discloses production of aromatic fermented coffee beverages, one of ordinary skill in the art would have been further motivated to add additional aroma to the coffee beverage (so called "artificial aroma") in order to further increase organoleptic properties of the fermented coffee beverage. One of ordinary skill in the art would have been motivated to do so, since addition of various aromatic substances to beverages in general, including coffee beverages, was a well established practice in the art.



***Response to Arguments***

Applicant's arguments, see pages 6-10 of the Reply to the Non-Final Office action mailed 11/16/2009, filed 02/26/2010, with respect to the rejection of claims 1-21 under 35 U.S.C. 112, second paragraph have been fully considered and are persuasive. The rejection of claims 1-21 under 35 U.S.C. 112, second paragraph has been withdrawn.

The rejection of claims 1, 2, 4, 6, 7, 9-11 and 13-21 under 35 U.S.C. 102(b) as being anticipated by Wood et al (EP 0791296) has been withdrawn in light of the amendments of claims 1, 13 and 14. Claims 1, 2, 4, 7, 9-11 and 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al (EP 0791296) as stated in the Office action above.

On page 11 of the Reply, Applicants provide the summary of the invention.

On page 12 second paragraph of the Reply, Applicants state that:

Wood fails to disclose or suggest a beverage base comprising less than 0.05% ethanol and a fermented coffee component having a modulated coffee aroma with fruity and/or floral notes due to the fermentation of the coffee aroma as is required, in part, by the present claims. Instead, Wood is entirely directed to a process for the preparation of a fermented drink that may be prepared from coffee and includes the use of a yeast strain specifically for the purpose of producing ethanol and a bacterial strain specifically for the purpose of acidifying an aqueous extract.

In regard to the "less than 0.05% ethanol" argument, Applicants are referred to the Office action above. Since Wood et al discloses control of fermentation by reduction of temperature in order to reduce formation of alcohol and beverage containing only traces of ethanol, one of ordinary skill in the art would have been motivated to control

the fermentation temperatures in order to produce a non-alcoholic beverage having alcohol content as recited. In regard to the fruity notes recitation, Wood et al discloses coffee beverage having fruity flavor (Col. 5 Example 5). In response to applicants' arguments regarding "Wood is entirely directed to a process for the preparation of a fermented drink that may be prepared from coffee and includes the use of a yeast strain specifically for the purpose of producing ethanol and a bacterial strain specifically for the purpose of acidifying an aqueous extract", it is noted that the claims 1, 13 and 14 do not recite the specific microorganism used (yeast, or bacteria or both), Wood et al discloses control of fermentation by reduction of temperature in order to reduce formation of alcohol and substantially non-alcoholic beverage containing only traces of ethanol.

In response to the arguments regarding the temperature of the fermentation (page 12 of the Reply), Applicants are referred to the Office action above. Wood et al discloses addition of bacterial strain for further fermentation at 20-32°C (Col. 3 line 3) and therefore discloses fermentation under 22°C.

In response to the fruity notes arguments (page 12 of the Reply), Applicants are referred to the Office action above. Wood et al discloses coffee beverage having fruity flavor (Col. 5 Example 5).

In response to the acetic acid arguments, it is noted that Wood et al also discloses reduction of acid development along with reduction of alcohol development during fermentation due to the temperature control.

**Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VERA STULII whose telephone number is (571)272-3221. The examiner can normally be reached on 7:00 am-3:30 pm, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vera Stulii/  
Examiner, Art Unit 1781

/Keith D. Hendricks/  
Supervisory Patent Examiner, Art Unit 1781